



MINDANAO CENTER FOR EDUCATION
RESEARCH, TRAINING AND INNOVATION

Research Brief

Redesigning the USePAT as a Measure of College Readiness

MCERTI Research Brief No.1 s. 2024

Admission tests, like the University of Southeastern Philippines Admissions Test (USePAT), have an important role in selecting students who have the potential to thrive in college or university level coursework. For over two decades, the USePAT has been a valuable tool for selecting students to be admitted in their chosen programs. However, a closer look at its history raises questions about its construct and its relevance with current educational needs. While the USePAT has served the university well, there is a lack of clarity on what it truly measures. Unfortunately, there is no record about how the USePAT was designed and the way it measures what it is supposed to measure. This raises concerns about whether the USePAT is responsive enough to the evolving educational landscape and changing student demographics, particularly in light of concerns about equity and inclusivity in higher education.

KEY FINDINGS

- The re-design of the USePAT aligns with established knowledge and theoretical perspectives about cognitive skills needed for college.
- The USePAT is a reliable unidimensional measure of college readiness that shows minimal to no bias based on sex, income background, school type, or cultural background.
- Some items of the USePAT exhibited bias for applicants with hearing impairments, necessitating improved test accommodations and support
- Psychometric evidence supports the validity claims and interpretation and use arguments for the USePAT



Redesigning the USePAT as a Measure of College Readiness

How the Study Was Conducted

To address the issues raised about the USePAT, a multi-stage redesign process was implemented. First, focus group discussions with stakeholders informed the development of a theoretically grounded definition of "college readiness" which then guided the creation of a test blueprint. Subject matter experts subsequently reviewed the pool of test items for technical quality and alignment with the blueprint. A pilot test with a sample (n=287) from selected high schools then assessed the characteristics of the initial test form. Data analysis from this pilot informed the design of the final test version, administered to over 8,000 students under standardized protocols, with a focus on ensuring the validity of the use and interpretation of the revised USePAT.

Our Findings

Informed by stakeholder feedback and a review of cognitive readiness theories, the USePAT was redesigned to assess examinees' ability to apply learned knowledge to complex tasks. The revised exam required examinees to demonstrate, use, and integrate knowledge across core high school subjects to perform college-level tasks and reasoning.

Psychometric evidence, derived from four key Interpretation and Use Arguments (IUAs) also supports the validity of the revised USePAT. First, the test design aligns with established knowledge about cognitive skills needed for college. Experts reviewed and confirmed item alignment with these skills and content areas. Statistical analysis also showed that the items contribute to measuring cognitive readiness and fits the measurement model well. Second, evidence has also shown that the overall USePAT score, exhibits good reliability and could distinguish well between high and low performers.

Third, differential item functioning (DIF) analyses revealed no significant bias based on sex, income, school type, or cultural background. However, some items exhibited bias for applicants with hearing impairments, necessitating further investigation and potential revisions to test accommodations and support.

For admissions decisions, Stanine scores provide a normative interpretation, allowing comparisons across diverse backgrounds. Scaled scores derived from person estimates offer an interval measure and user-friendly representation suitable for research purposes. These findings support the USePAT's validity as a measure of college readiness in admissions and research.

The Authors



Jennifer M. Arbiol is the Project Leader and Associate Professor of the Special Education -Teacher Education Program



Henry C. Encabo is the Center Manager of MCERTI and Associate Professor of the Mathematics Teacher Education Program



Angelie V. Cabajes is an Assistant Professor of the Special Education - Teacher Education Program



Marriez T. Aquino is an Assistant Professor of the Special Education - Teacher Education Program



Fedelis C. Bonocan is the Deputy Director of the Admissions Office and Associate Professor of the Science Teacher Education Program

